

REMARKS

Claims 8-14 Deemed Allowable

The allowability of claims 8-14 is acknowledged.

Interview Summary

The Office Action dated March 9, 2004 includes an interview summary. It is respectfully submitted that the summary mistakenly identifies "Mr. Lois Cartier" as participating in the interview, when in fact it was LeRoy Maunu who discussed the claim limitations with Examiner Phan.

The summary in the Office Action additionally fails to note the explanation of Kim's teachings as provided by Mr. Maunu, even though the summary does repeat the Examiner's position with respect to the alleged teachings of the Kim reference ("Kim"). As was explained in the interview and is further explained below, Kim neither shows nor suggests randomly generating a set of parameter values for the logic core and generating a netlist from the set of parameter values and logic core. Kim suggests randomly generating stimuli during simulation, not randomly generating a set of parameter values for a logic core and generating a netlist from the set of parameter values and the logic core.

Rejections Under 35 USC §103(a)

The Office Action fails to establish that claims 1-7 and 15-20 are unpatentable under 35 USC §103(a) over U.S. patent number 6,120,549 to Goslin et al. ("Goslin") in view of U.S. patent number 6,554,531 to Kim et al. ("Kim"). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are taught by the references, fails to provide a proper motivation to combine the references, and fails to show that Goslin could be successfully modified with the teachings of Kim with reasonable success. Thus, the Office Action fails to establish a *prima facie* case of obviousness.

Claim 1 includes limitations of randomly generating a set of parameter values for the logic core, generating a netlist from the set of parameter values and logic core, and simulating circuit behavior with the netlist. Neither the current Office Action nor any of the previous four Office Actions have applied any prior art that suggests randomly generating parameter values and generating a netlist from the random parameter values.

Goslin is cited as teaching specifying values for parameters of a system-level module and generating a netlist file from the module. The teachings of Kim do not suggest that values for these parameters can be randomly generated nor that a netlist can be built with those random parameters. As explained in the interview and in the response to the previous Office Action, Kim suggests randomly generating stimuli during simulation. Thus, even if teachings of Kim were combined with teachings of Goslin, the resulting system would not involve randomly generating parameter values for a logic core and generating a netlist using those random parameter values.

Kim's teachings specifically indicate that the random data is generated for input to simulation, not random parameter values for generating a netlist from a logic core. For example, Kim's title calls out random stimulus generation. Furthermore, Kim teaches:

The Verilog simulator executes a Verilog language model of a hardware device under test, while the Vera simulator executes a Vera language model of the environment in which the DUT is to be tested. As an environment simulator, the basic functionality of the Vera simulator is to simulate the DUT by driving certain of its inputs and to monitor the resulting states of the DUT by sampling the values of its nodes. (col. 6, ll. 48-55).

Kim's invention adds to the Vera simulator capabilities which facilitate the generation of random data (col. 10, ll. 30-32). Kim's random data is for input stimuli to the simulator, not random parameter values for a logic core from which a netlist is

generated. Furthermore, Kim does not suggest that the capability to generate random data for simulation stimuli can be extended to parameter values. Kim's disclosure appears to be limited to simulation, and does not appear to discuss the process of generating a netlist. Thus, Kim's teachings are not suggestive of the present claims.

The alleged motivation for modifying Goslin with Kim does not support *prima facie* obviousness. The alleged motivation states, "This would motivate practitioner in the art at the time of the invention was made to combine Kim teaching of random value generation of design variables in the circuit design test and verification such as in Goslin parameterized logic cores in order to carry out a faster and accurate test and verification of the design as taught in Kim."

This alleged motivation is improper because it is conclusory. Addressing the "rigorous ... requirement for a showing of the teaching or motivation to combine prior art references," the Court of Appeals for the Federal Circuit has stated:

We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, (citations omitted), although "the suggestion more often comes from the teachings of the pertinent references," *Rouffet*, 149 F.3d at 1355, 47 USPQ2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., *C.R. Bard*, 157 F.3d at 1352, 48 USPQ2d at 1232. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *In re Dembiczak*, 175 F.3d 994, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999).

To the extent that the alleged motivation is understood, alleged motivation seems to say that the combination would provide faster and more accurate test and verification of the design. However, no evidence is provided that the testing and verification would be faster and more accurate, nor is there any reasoning provided as to how the combination would be faster and

more accurate, nor is there any explanation of what is meant by "faster" and "more accurate". The alleged motivation is merely a broad conclusory statement, and no evidence has been provided that suggests how Goslin would or could be modified, nor has evidence been provided that suggests Goslin would benefit from such modification. Therefore, the alleged motivation is insufficient to support *prima facie* obviousness.

Successfully modifying Goslin with the teachings of Kim is not reasonably likely. Goslin deals with generating optimized functional macros (Title), and Kim teaches generating random stimuli for simulation. Using random stimuli in the process of generating functional macros would not serve any apparent useful purpose because there is no simulation involved. Therefore, the modification would not be expected to reasonably succeed.

The Office Action does not establish a *prima facie* case of obviousness for claim 1 because the Office Action has not shown that all the limitations are taught by the references, has not provided a proper motivation to combine the references, and has not shown that Goslin could be successfully modified with the teachings of Kim with reasonable success.

For claims 2, 3, 4, 5, 6, 7, 15, 16, and 17, the Office Action repeats the allegations made in the Office Action dated April 24, 2003 that Goslin teaches the limitations in these claims. The response filed July 15, 2003 explains at length that Goslin does not teach these limitations. The arguments in that response are incorporated herein by reference. Furthermore, the subsequent Office Action dated October 6, 2003 did not respond to the traversal, and instead simply repeated the citations made in the April, 2003 Office Action. In the interest of moving this application forward, Applicants respectfully request that in the next Office Action the Examiner withdraw the erroneous rejections of these claims over Goslin, or specifically respond to the explanations previously presented in the response of July 15.

A *prima facie* case of obviousness is not established for claims 2, 3, 4, 5, 6, 7, 15, 16, and 17, because Goslin does not

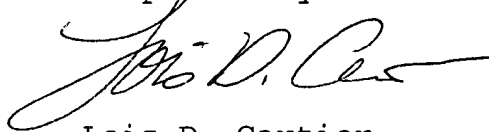
suggest the limitations of these claims, as explained at length in the July 15, 2003 response.

Claims 18, 19, and 20 are system and apparatus claims. To the extent that the limitations of claim 1 are similar to the limitations of these claims, the Office Action has not established a *prima facie* case of obviousness for at least the reasons set forth above.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

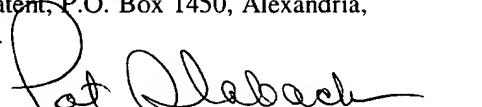
Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450, on May 18, 2004.

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Name


Signature